NEW JERSEY ENVIRONMENTAL PERFORMANCE PARTNERSHIP AGREEMENT (FY 2005-2007)

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND U.S. ENVIRONMENTAL PROECTION AGENCY REGION 2

This Agreement describes our continued shared agenda for environmental progress in the state of New Jersey, our measures to evaluate this progress, and agreed upon strategies to reach our mutual goals. This plan furthers the partnership for environmental protection in the State, while also articulating our expectations for the state/federal relationship.

A critical element of this partnership is the utilization of creative joint efforts to resolve programmatic obstacles that must be addressed in order to achieve our goals and to fulfill the needs of each agency. By signing this Agreement, the New Jersey Department of Environmental Protection and the Environmental Protection Agency Region 2 agree to continue utilizing the philosophies and guiding principles embodied in the National Environmental Performance Partnership System (NEPPS) process. This federal/state system emphasizes results-based management through the development of environmental priorities, goals, and measures of progress appropriate for each individual state. The environmental goals, indicators and agency commitments contained within this Agreement continue to be refined and updated. This evolving environmental management approach is informed by the development of each of our agencies' Strategic Planning documents, the results of our collective actions, and our stakeholders' input. This plan articulates Department-wide and Agency-wide directions and addresses both federal and state-funded strategies.

This Agreement includes, but is not limited to, directions and strategies in the areas of Clean Air (air quality and global climate change), Clean and Plentiful Water (water quality and quantity), Land and Natural Resources (healthy ecosystems and abundant open space), Safe and Healthy Communities (site remediation, solid and hazardous waste, pollution and release prevention, pesticides, radiation, and mercury), and Compliance and Enforcement. This Agreement will serve as the foundation of environmental protection in New Jersey and shall guide our joint environmental program performance through June 30, 2007.

New Jersey Department of Environmental Protection

Bradley M. Campbell

Bradley Campbell
Commissioner

9/1/04
Date

U.S. Environmental Protection Agency, Region 2

Jane M. Kenny
Regional Administrator

9/14/04
Date

New Jersey Environmental
Performance Partnership Agreement (FY 2005 –2007)

New Jersey Department of Environmental Protection
And U.S. Environmental Protection Agency, Region 2

SUMMARY

The New Jersey Department of Environmental Protection (NJDEP) is proud to be a state leader in implementing the National Environmental Performance Partnership System (NEPPS) and is pleased that NJDEP and the Environmental Protection Agency (EPA) Region 2 agreed to another Performance Partnership Agreement (PPA). The Agreement is for a three year time period (State FY05-07); both agencies will have the opportunity to identify, annually, those items that need to be revised. This is the 5th PPA for New Jersey. The PPA set forth jointly developed goals, objectives, and priorities; the strategies to be used in meeting them; the roles and responsibilities of NJDEP and EPA Region 2; and the measures to be used in assessing progress. This PPA describes our continued shared agenda for environmental progress in the State of New Jersey, our measures to evaluate this progress and agreed upon strategies to reach our mutual goals. This plan furthers the partnership for environmental protection in the State while also articulating our expectations for the state/federal relationship. The PPA also serves as the work plan for the Performance Partnership Grant (PPG), the funding vehicle for awarding combined applicable PPA environmental programs funds under a single grant. For SFY 2005 through 2007, the areas to be covered under this PPA include:

- Clean Air Act, Title 105
- Clean Water Act, Titles 106, 104(b)3, 319(h)
- Safe drinking water (Public Water Supply Supervision)
- Resource Conservation and Recovery (RCRA)
- Radon
- Pesticide Control
- Underground injection control (UIC)
- Underground storage tanks (UST)

BACKGROUND

The PPA sets forth environmental directions for the State of New Jersey. This long-range direction setting process is based on the development of environmental goals and milestones, the identification of specific measures of progress towards these goals, and articulation of strategies and actions designed to achieve them. This agreement provides the partners' mutual understandings of the desirable environmental outcomes, the performance exceptions for the participating programs, the state/federal relationships, and the joint review arrangements.

This agreement declares the intent of NJDEP and EPA, to work together during State Fiscal Years 2005 – 2007 in pursuit of a partnership in environmental protection for the State of New Jersey. This document supports the NEPPS process, which is an approach designed to foster identification of state environmental priorities and goals, and to allow states to better direct federal resources to address priorities.

STATE PRIORITIES

There are numerous federal programs currently delegated to NJDEP. The parties will work together whenever there are major changes to relevant federal statutes or regulations to ensure the delegated state program remains equivalent to the federal program. NJDEP, by virtue of delegated program authorities and as recipient of EPA grant funds, plays an integral part in achieving the EPA's Government Performance and Results Act (GPRA's) goals and objectives, and NJDEP's priorities. As such, NJDEP and EPA Region 2 agree to measurable outcomes and outputs in assessing performance progress.

The programs covered under the PPA conform to the requirements applicable to environmental grant programs, 40 CFR Section 35.133, which lists programs eligible for inclusion in the PPG. NJDEP recognizes that the PPA can not supercede existing laws and regulations and does not change delegation agreements. However, if during the period of this PPA, NJDEP seeks programmatic flexibility to increase efforts in some program areas where needs are greater, and decrease them in others where needs are less, NJDEP will have the option of applying for an application for flexibility. This will require the EPA Regional Administrator to make a decision on the programmatic flexibility request.

This PPA reflects the mutual understandings reached between the two parties for program implementation and extent of oversight. EPA's role is to oversee the implementation of State-authorized programs, to provide technical and analytical support for State-authorized programs, and to directly implement non-authorized programs, in most cases with State assistance.

It is envisioned that EPA's level of detailed review and approval of State program activities will continue to decrease. As further evidence of the benefits from a true partnership, EPA will provide the necessary flexibility to State programs where needed and will carry out activities that complement State actions to achieve these program objectives. EPA will direct additional Regional resources, in the form of technical and financial assistance, policy development, and technical/scientific information toward these objectives by targeting program activities and discretionary resources to meet State management program needs.

Region 2 has elected to pilot EPA's state enforcement program review framework in New Jersey in calendar year 2004. EPA Region 2 and NJDEP will conduct a state enforcement program review based on the final framework developed by EPA and Environmental Council of States (ECOS). While we expect that it will be primarily EPA staff/management and NJDEP management resources that are expended in this effort, some NJDEP staff investment will be required and will be considered in light of other commitments. EPA and NJDEP will incorporate any agreed upon program improvements in their next PPA/PPG (or PPA/PPG annual amendment) after completion of a State Program Review. NJDEP will be allowed the opportunity to provide feedback on the findings of the state review before it is finalized. EPA and NJDEP agree that building additional state compliance assistance resources and capacity will further strengthen NJ's overall enforcement and compliance program. Accordingly, NJDEP will coordinate with Region 2 to maximize the impact and effectiveness of NJDEP and EPA compliance assistance activities.

WHY A PPA?

EPA and NJDEP recognize that there are several key reasons to formalize its relationship through a PPA rather than a traditional individual program workplan relationship:

a. Strengthen partnership between EPA and NJDEP through joint planning and priority-setting and better deployment of resources;
b. Allow for comprehensive planning through a comprehensive set of commitments
c. Give NJDEP greater flexibility to shift resources to address priority needs
d. Enable NJDEP to fund cross cutting efforts that are difficult to support with traditional grants
e. Foster use of innovative strategies for solving water, air and waste problems
f. Enable work load to be divided more efficiently between federal and state agencies
g. Increase focus on environmental results and program effectiveness
h. Improve coordination of compliance and enforcement efforts
i. Foster reduced reporting burden and improved information management (ease of tracking)

COMPONENTS OF THE PPA

The NJDEP PPA has the following major components:

I. RA-Commissioner joint priorities. The EPA Regional administrator and the NJDEP Commissioner met on April 17, 2003 and agreed to five joint priorities that they want to emphasize throughout the three years of the PPA. The five priorities are:

1. Reduction in fine particulates from diesel sources with a focus on urban areas;
2. Areawide brownfields;
3. Environmental justice dialogue meetings;
4. Lead in school drinking water; and
5. Wetlands mitigation

These joint priorities have been formally incorporated into the amended SFY 2003/ SFY 2004 NJ PPA that we approved for the period up until 6/30/04. At a follow up meeting on October 7, 2003, EPA updated the status of these 5 projects, and NJDEP ranked them for the purpose of implementation. These joint priorities are continuing as part of this PPA.

II. Spreadsheet of PPG-funded commitments

I. Other priorities of NJDEP that are not currently funded by EPA but could be in future include the projects submitted in May 2003 for discretionary funding. NJDEP will update the list of project by January 15 of each year. To minimize duplication of effort (i.e. NJDEP applying for program flexibility separately) and with the assumption that basic programs are maintained since discretionary funds are a complement, not a requirement of basic programs, EPA will assume that any request by NJDEP for discretionary funds includes a request for program flexibility and EPA agrees to seek to accommodate NJDEP requests for such program flexibility through discretionary funding.

PERFORMANCE PARTNERSHIP GRANT

With this effort to establish a Performance Partnership Agreement, the NJDEP will be issued a Performance Partnership Grant (PPG), pursuant to 40 CFR 35.130. Federal legislation allows a number of grants, awarded by the EPA, to be combined into a single PPG. This arrangement affords the State greater flexibility to address its highest priorities, and should continue to result in administrative and programmatic savings.

GOVERNMENT PERFORMANCE AND RESULTS ACT GOALS

EPA and the states worked together to modify the EPA grant regulations in 40 CFR part 35. The modified rule is intended to promote state-EPA collaboration, provide opportunities for innovations, and reduce paperwork while ensuring sound fiscal management and accountability for environmental performance in a manner consistent with NEPPS. For example, EPA hopes to foster joint planing and priority setting by explicitly requiring that state priorities and needs be considered, in negotiating grant work plans, along with the GPRA Goal and Objective architecture, and national and regional guidance. Under this rule, a state can choose to organize its grant work plans in accordance with environmental goals and objectives, or in other new ways, rather than using categories pre-defined by EPA. However, EPA must be able to link the grant work plan to EPA's GPRA goal and objective architecture. The EPA's reports of Agency resources associated with outcomes and outputs will incorporate at the GPRA goal, objective, and sub-objective level expenditures incurred in the form of payments under the PPG. EPA and NJDEP believe that this PPA furthers the objectives represented by NEPPS and demonstrates significant progress in our joint planning effort.

PROGRAMMATIC FLEXIBILITY

If approved by the EPA Regional Administrator, a PPG can also provide the State with programmatic flexibility to increase efforts in some program areas where the State's needs are greater and decrease them in others where the State's needs are less. In applying for programmatic flexibility, the State agency must provide a rationale commensurate with the type and amount of flexibility being proposed, explaining the basis for the State's priorities and the environmental or other benefits it expects to achieve. The State must also assure that basic programs are maintained for all programs combined in the grant. The Regional Administrator and NJDEP Commissioner will negotiate regarding the environmental and other information that EPA needs to make a decision regarding the application for flexibility. Information useful in supporting a State's proposal for programmatic flexibility may already exist, such as in a PPA, a recent water quality report, or a previous grant evaluation. Such information should be used to the extent possible to minimize duplication of effort.

STAKEHOLDER PARTICIPATION AND OUTREACH EFFORTS

Throughout New Jersey's participation in the NEPPS process, various mechanisms to inform the public and stakeholders of NJDEP's commitments to EPA and activities under NEPPS have been pursued. NJDEP management and staff held numerous discussions with stakeholder groups such as:

Clean Air Council
Petroleum Council
Chemical Industry Council
State legislative committees
Local and municipal officials
County officials
National meetings/conferences

Internal presentations and workshops have also been made to management and staff at both agencies to provide information and receive input on New Jersey's commitments to EPA under NEPPS. Additionally, NJDEP and EPA Region 2 managers have held several joint, one-day meetings, the latest in February 2004, to continue to familiarize managers in both agencies with

the alignment of the NEPPS process with EPA's national and regional strategic plans and the annual program activities measures.

Articles about NEPPS and the content of the PPA will be developed for individual program publications once the PPA is final with a focus on the impact of the new PPA on program operations. The NEPPS process has informed the development of NJDEP's strategic action workplan that identified priority initiatives during the first term of the McGreevey administration. There is compatibility between the strategic action workplan and the PPA so that the PPA clearly reflects priorities of NJDEP as expressed in the strategic action workplan.

NEPPS web sites have been established by both NJDEP and EPA Region 2 in order to keep stakeholders informed of NEPPS developments in New Jersey. On those web sites, stakeholders can find general information regarding NEPPS, as well as links to other environmental web sites.

PROGRAM REVIEW PROCESS

40CFR 35.115 states that "the applicant and the Regional administrator will develop a process for jointly evaluating and reporting progress and accomplishments under the work plan. A description of the evaluation process and a reporting schedule must be included in the work plan. The schedule must require the recipient to report at least annually and must satisfy the requirements for progress reporting under 40 FR 31.40(b). 40CFR 31.40(b)(2) states that "performance reports will contain, for each grant, brief information on the following: (1) a comparison of actual accomplishments to the objectives established for the period…[and] (ii) the reasons for slippage if established objectives were not met.

Currently, several mechanisms are in place to document and evaluating progress and accomplishments under the PPA:

- As outlined in the second component of this PPA, the Spreadsheet of PPG-funded commitments, many, if not most individual program activities include an element of progress reporting to individual EPA programs.
- NJDEP will prepare an annual spreadsheet-based Annual Performance Report for EPA at the end of each state fiscal year with brief information outlining: a comparison of actual accomplishments for each individual PPG-funded commitment for that annual period as well as reasons for slippage and mid-course corrections to address deficiencies.
- Whether as part of national or regional initiatives, EPA Region 2 may undertake an individual program review. An example of an EPA program review that is an additional layer to other progress reporting is the upcoming pilot of EPA's state enforcement program review framework in New Jersey in calendar year 2004. No new funds will be provided by EPA for NJDEP's resources nor have any PPA-basic program commitments been reduced to accommodate NJDEP's resources that will be put into this effort. EPA has indicated that any resultant program improvements will be included in the subsequent PPA/PPG. Another example of an EPA program review that is an additional layer to the NEPPS annual performance review is the recent EPA initiated assessment of New Jersey's delegated NJPDES program. This review has involved considerable resources of NJDEP management and staff and, similar to the enforcement effort, did not receive additional funds or relief in the PPA for NJDEP's participation.

In addition to these mechanisms for the program review process, NJDEP will begin producing web-based State of the Environment Reports, starting January 2005 and every two years

thereafter. EPA and NJDEP consider the State of the Environment Report an important complement to other program review mechanisms since it will provide an overview of environmental quality in the State rather than an activity-based evaluation.

NJDEP will produce a spreadsheet-based APR for the two preceding state fiscal years by October 15, 2004. NJDEP will annually produce a spreadsheet-based APR by September 30 of each year thereafter, starting on September 30, 2005. In order to accomplish this, NJDEP will submit a draft APR to EPA by July 30 of each year. EPA and NJDEP program managers will then meet to discuss the draft APR; based on the outcomes of this meeting, NJDEP will finalize the APR by September 30. Significant issues will be raised for discussion at the RA/Commissioner level, as appropriate. In addition, in the spirit of NJDEP and EPA's commitment to the NEPPS process and, in particular, to minimize duplication of progress reporting, where appropriate, the APR will reference other program review mechanisms such as the other two types of program review mechanisms in the list above. This approach will allow the APR to be an overall program review, providing primary progress reporting and referencing other program review mechanisms where appropriate. Following completion of each APR, NJDEP and EPA will work in partnership to consider any appropriate changes to the Spreadsheet of PPG-funded commitments for upcoming state fiscal years.

ATTACHMENT
Examples of Projects for which NJDEP may seek Discretionary Funding

Submitted by the New Jersey Department of Environmental Protection

April 16, 2004

Contact: Jeanne Herb, Director
Policy, Planning and Science

The New Jersey Department of Environmental Protection is submitting eight projects to USEPA, Region 2 for consideration for discretionary funding. An overview of each project is attached and a list of them is contained in the table below. The table below also indicates NJDEP's proposed budget for each project as well as NJDEP's suggestion to USEPA for sources of EPA discretionary funds could potentially be applied to each project.

Project (Priority)	Proposed Cost	Relationship to Program Funding
Diesel outreach and early intervention (#4)	$200,000	• Air
Upgrade of Radiation Monitoring System (#1)	$100,000	• Commissioner's Discretionary
Assessment of Contamination in Recycled and Reused Materials (#6)	$175,000	• RCRA C • Pesticides
Monitoring environmental contamination in bald eagle nestlings (#5)	$127,000	• Water • Pesticides
Assessment of lead exposure in soils and drinking water in urban schools (#2)	$100,000	• Commissioner's discretionary • Air • Drinking water
Environmental Justice Technical Assistance and Education Grants (#3)	$100,000	• Commissioner's discretionary • Air
Classification of the Ecological Communities of New Jersey (#7)	$180,000	• Water
Wetland Scientific and Regulatory Program Professional Development (#8)	$40,000	• Water

Project Title: Diesel Outreach Campaign
Principal Investigator: Peg Hanna
Budget: $200,000

OVERVIEW:

Under the leadership of Governor McGreevey and Commissioner Campbell, the NJDEP has embarked on an aggressive diesel risk reduction campaign aimed at reducing harmful emissions from both on-road and non-road mobile sources. Our multi-faceted effort will include an idling reduction campaign, a statewide mandatory retrofit program, and a more effective roadside inspection program. The common theme throughout our campaign will be outreach, education and partnerships, so that we can more effectively achieve our goals.

SCHOOL BUS PROJECT:

School buses will be the first target for our idling reduction campaign. Since school buses are required by NJ law to be replaced every 12 years, it is not as cost effective to require retrofitting with control devices as it might be for other types of vehicles. Therefore, NJDEP is concentrating its efforts on education and outreach to the school community. To build a coalition, we will enlist the help of groups such as the School Nurses Association; NJ School Transportation Supervisors Association; NJ Association of School Board Administrators; NJ Parent Teacher Association; the Pediatric Asthma Coalition; and the NJ School Superintendents Association. Fact sheets and other informational materials will be broadly disseminated via mass mailings and our new diesel website.

The second component of the campaign will be to target 50 school districts who will help develop visible signs of our commitment to reduce idling, including:

- Purchase and work with school districts to install "No Idling" signs;
- Encouraging School Administrators and Transportation Directors to sign a No Idling Pledge of Allegiance, which calls for bus driver training on the need to reduce idling, visible commitments to the Pledge including "No Idling" signs on each bus and in front of every school, and pledging to use the newest buses for the longest daily trips;
- Mobilizing and educating PTAs on the need for reduced idling and to help enforce the No Idling Pledge
- Developing an idling component (materials and video) for requisite annual school bus driver training; and
- Developing a compliance incentive package which might include: recognition via a Back to School press release for all school districts that signed and abided by pledge of allegiance; A+ stickers for students to give drivers that don't idle; and a Statewide or school district-wide School Bus Driver Recognition Day.

In the final phase of the campaign, we will undertake focused enforcement of the idling standards, beginning with urban school districts. More notably though, we will pioneer a new enforcement approach whereby students, parents and teachers will be empowered to enforce the standards through the use of informational "tickets" that will be handed to each bus driver found idling in excess of the 3 minute limit. To properly enforce the standards statewide, we will also need additional NJDEP inspectors whose primary function will be to enforce the idling standard for all mobile source sectors.

BUDGET:

$5000	Developing and printing fact sheets, videos, pamphlets & other educational material (including design software, digital video camera and various printing costs)
$5000	Printing "No Idling Zone" Street Signs (50 districts X 12 schools per district X $8/sign = $4800)
$20,000	Printing and mailing informational tickets (50 districts X 1000 families X .40/mailing postage = $20,000
$2000	Magnetic "No Idling" signs for every school bus (50 districts X 50 buses per district X $7/sign = $1750.
$20,000	Conference registration and display fees (20 conferences including NJ PTA, School Business Administrators, Asthma conventions, Earth Day events, Children's Health organizations, etc. X $1000/conference)
$1000	Printing A+ stickers or bumper stickers
$15,000	Statewide or District-wide School Bus Driver Recognition Day – Food, Banner, etc. (50 districts X $3000/event)
$2000	Newspaper ads (periodic to announce anti-idling events)
$30,000	Consultant fees to develop and collect performance measures from 50 school districts (e.g., reduction in school days missed due to asthma, reduction in daily trips to school nurse for asthma treatment, interviews with school bus drivers and school administrators, etc.
$100,000	Salary for two new inspectors for one year of enforcement activities
$200,000	TOTAL

Project Title: Upgrade of Radiation Monitoring System
Principal Investigators: Karen Tuccillo, NJDEP
Budget: $100,00

Need for Project

.
Real-time ambient gamma radiation monitoring is conducted around New Jersey's two nuclear power plant site to ensure that the public's exposure to radiation resulting from the operation of the plants is As Low As Reasonably Achievable (ALARA) and to provide dose assessment for members of the public in the event of a reactor accident. The existing system is fifteen years old and both hardware and software components of it are no longer functional and no longer repairable.

Methods

As part of an overall system upgrade 10 pressurized ionization chamber gamma radiation detectors and associated communications hardware will be replaced at existing locations surrounding the Oyster Creek Nuclear Generating Station. Other funding will be used to upgrade the system's computer hardware and software.

Benefits of Project

Upgrading the radiation detectors and associated communications hardware will ensure that we maintain the capability of monitoring routine releases of radioactive material from the plant and that we are able to accurately assess radiation exposure and dose to the population living with the 10-mile Emergency Planning Zone around the plant. This project comes at a critical time in the history of Oyster Creek in that AmerGen LLC, the owner/operator of the plant recently announced that it will seek a 20-year license renewal from the NRC. This is particularly significant in view of the fact that Oyster Creek is the oldest operating commercial nuclear power plant in the United States and hence will be the first plant to enter into its 20-year license extension.

Budget

10 Reuter Stokes Pressurized Ionization Chambers and associated communications hardware @ $10,000 each: $100,000

Project Title: Assessment of Contamination in Recycled and Reused Materials
Principal Investigators: To be Determined, NJDEP
Budget: $175,000

.

Need for Project

Issue: There is a growing body of evidence that many materials the Department encourages be recycled and reused may exceed departmental guidelines for health and environmental safety if indiscriminately applied to the ground or distributed in the environment. Materials for which we have seen data to support this concern include Compost from our Class C recycling facilities, Recycled Concrete Aggregate from our Class B recycling facilities and Soils blended at largely unregulated commercial soil blenders.

Our immediate concern with Compost is the "carry-through" of the herbicide Clopyralid. Commercial turf maintenance companies use Clopyralid to control broadleaf weeds. If grass clippings contaminated with Clopyralid are subsequently collected and composted along with leaves, the herbicide is not destroyed in the composting process. Subsequent use of the compost product though not perceived to be a human health risk, may affect the use of the compost in certain growth applications. Compost products from our Class C recycling facilities are widely distributed to homeowners and on a commercial basis. Additional analytical data from strategically selected Class C recycling facilities in New Jersey may be necessary for us to justify increased sampling be conducted routinely on final compost product (this is likely to increase the cost of recycling) or alternatively to provide regulatory controls to preclude the entry of Clopyralid and other suspect herbicides and pesticides into the compost stream.

Recycled Concrete Aggregate (RCA) has been tested as a result of the product being used as backfill at a number of SRWM clean-up cases such as tank removals. Documented results have been compiled showing elevated levels of Arsenic, PAHs, PCBs and some pesticides. These results have already led staff to curtail the use of recycled product at supervised clean-up projects. RCA is widely used in many construction projects and while we believe that many such uses are protected from environmental exposure by placement of a paved surface above, to date, there is no restriction to preclude the use of RCA as common fill or as a sub-floor fill material in residential or commercial construction. We believe a more comprehensive sampling of RCA and potentially other commonly recycled fill materials produced by New Jersey Class B recycling industry is needed to enable a scientifically valid evaluation of allowable uses of these products or to develop an adequate testing protocol to be followed by the industry (this is likely to increase the cost of such recycling and may prove to be a disincentive).

Soil blending is another area of concern as many soil blenders are using waste soils and manufacturing by-products that have been found contaminated beyond the department's standard criteria. As with the RCA issue, some of these soils have been used at SRWM cleanup sites and were documented as containing Arsenic and Chlordane contamination for example, exceeding typical cleanup standards. Most of the contamination is anthropogenic though some is naturally occurring such as Arsenic from soil strata containing high concentration of Arsenic. We believe a sampling plan should be developed for soil blenders, and particularly those using soils in areas with known contamination and manufacturing by-products such as wastewater treatment residuals to ensure that targeted compounds and other harmful chemicals used in the manufacturing process are not present in the soils at levels affecting human and environmental health.

Methods

Designated recycling centers and commercial soil blenders would be selected for sampling. Selection of the facilities will be based on historical knowledge of the sites' production of contaminated materials based either on testing of products or profiles of the sources of the sites' feedstock. As examples of the site selection process those sites with historically high levels of contamination in RCA, Clopyralid in compost, Arsenic in regional soils and Chlordane detected in past soil blends would be given priority for targeted contaminant profiling.

Benefits of Project

Recycling and reuse of materials is a priority of the NJDEP to help minimize unnecessary waste disposal. Recycling waste materials often provides more economically viable products and also prevents disposal of wastes, which consumes the State's limited existing solid waste disposal capacity. It is important to monitor the State's recycled products to ensure those products are of the highest quality to ensure their future marketability. This project will help regulators assess the significance of the issue in New Jersey in order to determine whether additional regulatory controls are required on the facilities to require quality control testing of their products.

Budget

Sample collection:	$ 25,000
Analysis:	$150,000
TOTAL:	*$175,000*

Project Title: Monitoring environmental contamination in Bald Eagle nestlings
Principal Investigators: Kathleen E. Clark, Principal Zoologist, NJDEP
Budget: $127,500

.

Need for Project

Bald eagles are considered an indicator species by NJ Department of Environmental Protection (NJDEP and USEPA 1999). Contaminants such as organochlorine pesticides, PCBs, and heavy metals (e.g., mercury) continue to pose a threat to the eagle population in NJ. We have documented toxic levels of PCBs in bald eagle eggs from several nests, particularly those associated with the middle Delaware River area from Camden to Salem (Clark et al. 1998).

As the eagle population has grown, there are more nests that are producing young successfully. ENSP biologists have routinely collected blood samples from eagle nestlings since 1993 (Table 1). Those blood samples are the means of monitoring the extent of contamination in young eagles fed prey taken from riverine and estuarine nest areas. In 1999 we completed a study that analyzed blood from 35 eagle nestlings from six nests in NJ and two nests in DE, all within the Delaware Bay region, between 1993 and 1996. Samples were examined for PCBs, chloro-substituted dibenzo-p-dioxins and dibenzofurans, pesticides, and metals such as mercury, arsenic and selenium. We concluded that the contaminants were below levels associated with immediate physiological or behavioral impacts; however, chronic and sublethal effects could still be manifested by bioaccumulation later in the eaglets' lives (USFWS and NJDFW 1999).

Since that study, we have collected and stored blood samples from 98 eagle nestlings from 24 different nest sites. The sampled nests include those from the population center in the Delaware Bay region, but also include northern and coastal NJ reservoirs, coastal-Pinelands, and Delaware River nests. Four of those nest sites have suffered from nest failures associated with contaminants, and two other nest sites are within close proximity to failing nests. Other nest sites have contaminant issues that arise from their location (e.g., Mantua Creek, Fort Dix), or were identified in the 1999 study. Others may have problems not yet detected since these samples have not yet been analyzed.

Methods

Samples of 10 ml each whole blood were collected during eagle nestling banding operations in 1997 through 2003. Analysis will be conducted by a laboratory that meets the standards set by the U.S. Fish and Wildlife Service, such as the U.S. Geological Service's Columbia Environmental Research Center or Texas A&M Geochemical and Environmental Research Group. Analysis will be conducted for organochlorine pesticides, PCBs (total and Aroclors), and heavy metals (As, Cd, Hg, Pb, Se). Additional analyses for PCB congeners, dioxins and furans (to determine dioxin Toxic Equivalencies) are recommended and included in proposal cost estimate.

Benefits of Project

The bald eagle is a sensitive indicator of environmental health. To date, most data on toxic contamination in eagles has been obtained from the most contaminated sites. While those sites continue to be an important area of study, the larger eagle population is successfully producing young, and this study will measure the exposure of young eagles to contaminants on the larger statewide basis.

Budget

Sample analysis: $122,500
Report preparation: $ 5,000
TOTAL: $127,500

Table 1. Blood samples taken from bald eagle nestlings between 1997 and 2003, by biologists from NJDEP Division of Fish and Wildlife's Endangered and Nongame Species Program.

	1997	1998	1999	2000	2001	2002	2003	TOTAL	**Site Comments**
Union Lake	2	1	1	2	2		2	10	Arsenic contamination
Cohansey-Fairfield	2		2					4	
Nantuxent	2	2				1		5	Upper Del. Bay
Belleplain		3	3		2	3		11	History of metals in eagle blood
Maurice River South		1						1	
Raccoon Creek/Monds		1	1	1				3	Documented contamination
Alloways Creek-Hancocks Br		3	2	1	3			9	
Bear Swamp			1					1	History of DDE in eagle blood
Mannington-Horne Run			1		1			2	Documented contamination
Merrill Creek			1	1	2	2		6	Reservoir issues (eg, Hg)
Rancocas				1		1		2	Documented contamination
Cohansey-Greenwich				1	3	1	1	6	
Supawna Meadows				1			1	2	Upper Del. Bay
Lake Lenape				2		1	1	4	Potential Hg issue
Galloway				3	2	2	2	9	
Cohansey-Hopewell					1	2	2	5	
Alloways 2-CampEdge					2			2	
Fort Dix						1		1	Furthest inland nest; potential contamination on-site
Maurice River North						2		2	Outflow of Union Lake
Mannington II						3	2	5	Documented contamination
Mullica River						2		2	
Dividing Creek							2	2	
Navesink							2	2	Reservoir issues (eg, Hg)
Mantua Creek							2	2	Documented contamination
TOTAL SAMPLES	6	11	12	13	18	21	17	98	

Project Title: **An Assessment of Lead Exposure at Schools: Lead in Soils in Play Areas and Lead in School Drinking Water**

Principal Investigators: Randy England, and Eileen Murphy, NJDEP
Brian Buckley, Environmental and Occupational Health Sciences Institute

Budget: $100,000 for 1st year

Need for Project

Recent studies have shown that blood lead levels in children can induce deleterious behavior and intelligence effects at levels much lower than originally thought. Specifically, researchers have linked lower IQ scores with children whose blood lead levels at or below 10 µg/dL (earlier work demonstrated the IQ effects at 10 µg/dL or higher). Further, other studies have shown that animals fed small amounts of lead exhibited more aggressive behavior than animals with a lead-free diet. These and other recent articles address the effects of lead levels below the presumably safe threshold of 10 µg/dL in blood.

While the most common source for lead exposure for children is chips and dust from lead-based paint inside the home, recent studies have shown that outdoor soil contaminated with residual lead fallout from vehicle exhaust and atmospheric deposition has been shown to contribute significantly to exposure. Clearly, in light of the recent literature, soil exposure may be a significant source of lead in children's blood.

Lead concentrations in urban soils are higher in other areas. The reasons for this are numerous: urban areas have higher traffic flow and congestion; urban areas tend to have more bare or exposed soil; urban areas contain older buildings with higher likelihood of having lead paint; and the "urban heat island" effect may also serve to concentrate contaminants like lead (less air flow). Research conducted in New Jersey indicates that lead levels in urban soils can be two to three times higher than the residential clean-up level for this metal. Other national reports validate this. While some investigation has been conducted on levels of soils in soils around homes, little to no work has been done examining the levels of lead in soils at schools and day care centers. Another potential source of lead to soils surrounding schools is the historical application of pesticides containing lead (i.e., lead arsenate). In fact, included among the recommendations of the April 1999 Historic Pesticide Contamination Task Force report is the need to conduct a state-wide sampling investigation of historic pesticide contamination, focusing on sensitive use areas. In particular, the sampling of 100 schools was discussed at a public meeting on January 21, 1999 in Burlington Township. Such a study was never conducted but continues to be warranted.

There is a need to evaluate the occurrence of metals and pesticides in soils surrounding schools and day care centers in urban areas as well as in former agricultural areas. The proposed project is a multi-phase assessment of the levels of metals and organic pesticides in soils in play areas at schools, municipal playgrounds and day care centers.

A second potential source of lead for children at school is lead that is found in drinking water. The source of lead is the leaded solder that was used on indoor plumbing or lead-containing brass alloys in faucets. Lead is dissolved (called leaching) in small amounts during contact with water. The longer the contact time, the more lead is dissolved. Typically, drinking water alone has not been associated with blood lead levels of concern. Combined with other sources,

however, the amount of lead from drinking water may be enough to increase the chances of harmful effects, especially in young children.

Because of this, the U.S. Environmental Protection Agency (USEPA) enacted rules and guidance under the federal Lead and Copper Control Act (LCCA) of 1988. The rules govern community water systems (CWS), which have had to conduct tests to determine the corrosiveness of water. If too many homes have tap water lead levels in excess of the federal action level of 15 micrograms per liter (equivalent to 15 parts per billion, or ppb), CWS had to decrease the acidity of treated water and/or increase the mineral content. Both actions decrease the corrosiveness. Some schools are supplied by their own wells and are categorized as non-community water systems. Such systems are covered by separate regulations. The Safe Drinking Water Act of 1986 banned the use of leaded solder in plumbing for drinking water and the production of water coolers with lead components.

In addition, the LCCA mandated that an effort be made to monitor and manage lead levels in schools and other non-residential buildings. Even though water delivered by the CWS may meet federal and state standards, the plumbing in individual buildings may still deliver too much lead in the drinking water. The problem may only occur following vacation periods and long weekends, when water "stands" in long-term contact with the pipe and faucet valves. However, it may be elevated even after evening closure during the week. The only way to be certain that lead is not a problem is a "first-draw" test of the drinking water outlets (taps, water fountains, and coolers) before any use in the morning. If a problem is found, usually the simplest solution is to flush the system by letting the water run for a short time (no more than a few minutes). Samples of "flushed" water should have significantly reduced levels of lead.

Methods for Soil Study

Phase I:
In the first phase of the study, the focus will be on metals levels in soils at play areas in urban areas.

Study Design:
A statistically valid number of schools in urban areas throughout the state will be determined. Once the schools have been identified and permission to sample received, soil samples will be collected by NJDEP staff and analyzed at Department of Health and Senior Services (DHSS) laboratories or a comparable contract laboratory. Statistical interpretation of the data will follow and conclusions drawn. Results from other New Jersey soil studies will be used for comparison purposes.

Site Selection:

Urban: 15 elementary schools and 5 day care centers = 20 urban sites. If sampling cannot be conducted at day care centers, 5 additional elementary schools or municipal playgrounds will be selected. Site selection will be focused in cities in counties with highest percentage of children with blood lead levels above 10 ug/dL, as reported in the annual report of the NJDHSS and DFHS on childhood lead poisoning in NJ (see appendix). These counties are Essex, Mercer, Passaic, and Union. Further prioritization will be used to target schools and day care centers in areas of the state known as "Abbot districts".

Sampling Design:

Five sampling locations will be identified at each site focusing on exposed soil in areas intensively used by children. Five sampling locations per site are important for statistical analysis. Samples will be taken from the upper surface soil (top half inch) to determine potential exposure. Within each of the 5 sample locations, five sub-samples will be composited into one. This process helps to account for nonhomogeniety in sample locations. In short, twenty five half-inch samples will be collected at each school or day center. After compositing, there will be 5 half-inch, composited soil samples for analysis.

Two discrete subsurface soil sample (0-6 inches, and 6-12 inches) will also be collected from each site to evaluate possible contaminant leaching and to determine local background concentrations of the contaminants.

Number of samples per site = 7
Number of samples = 7 per site x 20 sites = 140 samples
Add 10% QA/QC samples (14)
Total number of samples for the Phase I = **154**

Analytical Parameters:

Arsenic, Lead, and Chromium
% organic matter, pH, chlorides, % sand, silt & clay

Methods for Drinking Water Study

At least six school districts will be selected for sampling. Selection of the districts is made using children's blood lead data reported by the NJ Department of Health and Senior Services. The proposed districts for study are:

Irvington
East Orange
Trenton
Plainfield
Passaic
New Brunswick

The table below shows those municipalities with the highest percentages of children (all children and children 6-29 months old) having blood lead levels above or equal to 10 micrograms per deciliter. It is the same 14 municipalities whether looking at all children tested or the 6-29 year olds. Of those 14 municipalities, 12 are designated as Abbot.

Blood Lead Data for All Municipalities in DHSS study (>35,000 population)

All Children Tested		6-29 month olds tested	
MUNICIPALITY	**Percent >=10**	**MUNICIPALITY**	**Percent >=10**
Irvington Township	10.67%	*Irvington Township*	8.5%
East Orange City	10.19%	*Trenton City*	8.3%
Newark City	9.36%	*Newark City*	8.2%
Trenton City	7.77%	*East Orange City*	8.1%
Paterson City	7.19%	*Paterson City*	6.3%
New Brunswick City	5.94%	*Plainfield City*	5.8%
Plainfield City	5.51%	*New Brunswick City*	5.7%
Passaic City	5.50%	*Passaic City*	5.7%
Montclair Township	4.64%	*Camden City*	4.4%
Camden City	4.14%	*Perth Amboy City*	4.3%
Perth Amboy City	3.41%	Montclair Township	4.1%
West Orange Township	3.32%	West Orange Township	3.5%
Elizabeth City	3.17%	*Jersey City*	3.2%
Jersey City	2.9%	*Elizabeth City*	3.0%

Abbot municipalities shown in italics

All Children Tested		6-29 month olds tested	
MUNICIPALITY	**Percent >=20**	**MUNICIPALITY**	**Percent >=20**
East Orange City	2.20%	*East Orange City*	2.9
Irvington Township	2.05%	*Newark City*	1.9
Newark City	1.83%	*Irvington Township*	1.7
Paterson City	1.50%	*Plainfield City*	1.4
Passaic City	1.25%	*Passaic City*	1.3
Plainfield City	1.18%	*New Brunswick City*	1.2
Trenton City	0.95%	*Paterson City*	1.2
New Brunswick City	0.93%	Montclair Township	1.1
Montclair Township	0.79%	*Perth Amboy City*	1.1
Elizabeth City	0.77%	Clifton City	1
Linden City	0.74%	Linden City	1
Clifton City	0.71%	*Trenton City*	1
Perth Amboy City	0.69%	*Camden City*	0.7
Union Township	0.61%	Evesham Township	0.7

Abbot municipalities shown in italic

Sampling of taps (fountains, kitchen sink, and any taps used for drinking or preparation for consumables) will be performed with school personnel. This will serve a duo purpose: samples will be collected for the project and school staff will be trained in collecting lead samples for future collection.

Water samples will be analyzed by NJDHSS inorganics laboratory for total lead and copper. Results will be shared with the school and school district and remediation strategies, as appropriate, will be recommended and discussed.

Benefits of Project

There is a need to evaluate exposure of children to lead in the school environment. This project will look at exposure of children to both soils in play areas and to lead from drinking water.

There is a need to evaluate the occurrence of metals and pesticides in soils surrounding schools and day care centers in urban areas as well as in former agricultural areas. The proposed project is a multi-phase assessment of the levels of metals and organic pesticides in soils in play areas at schools, municipal playgrounds and day care centers. Management strategies to eliminate or reduce exposures of children to contaminants can be developed and implemented once the exposures and levels of exposures are understood.

Lead in school drinking water is a priority for USEPA as well as NJDEP. It is important to assess where we are since the LCCA was passed. This project will help regulators assess the significance of the issue in New Jersey.

Budget for Soil Project

Project Tasks	Phase I	Phase II	Phase III
Site selection	in-house (SRP & DSRT)	in-house (SRP & DSRT)	in-house (SRP & DSRT)
Sample collection	$10,000 (DSRT)	$10,000 (DSRT)	$10,000 (DSRT)
Sample analysis	$50,000	$50,000	$50,000
Data evaluation	in-house (SRP & DSRT)	in-house (SRP & DSRT)	in-house (SRP & DSRT)
Budget	$60,000	$60,000	$60,000
Total All Phases	**$180,000**		

Budget for Drinking Water Study

Project Tasks	Budget
Sample Collection	$10,000
Sample Analysis	$30,000
TOTAL	**$40,000**

Project Title: Environmental Justice Technical Assistance and Education Grants
Principal Contact: Jeremee Johnson, NJDEP
Budget: $100,000

Overview:

On February 18, 2004, Governor McGreevey signed Executive Order 96, creating New Jersey's first Statewide Environmental Justice Policy and one of the furthest reaching Environmental Justice policies in the country.
Following the Governor's commitment to "Build a Better New Jersey," the executive order confronts many of the environmental health issues, including the impacts of soot, arsenic and mercury on public health.
Both the national and state Environmental Justice Executive orders underscore the need for increased environmental protection efforts in minority and low-income communities. Several recent studies have documented the health disparities that exist in Black and Latino/Hispanic communities versus the general population. Studies indicate significant disparities in the burden of asthma among specific populations in the United States. Although asthma affects Americans of all ages, races, and ethnic groups, low-income and minority populations experience substantially higher rates of fatalities, hospital admissions and emergency room visits due to asthma. Individuals living in urban areas are more likely to get asthma or display asthma-like symptoms.
By offering self-identified environmental justice community these grants, our goal is to empower communities to obtain the information and understanding necessary to work with government authorities to address identified environmental justice concerns.

Environmental Justice Technical Assistance and Education Grants Pilot Program

Methods:

In furtherance of the national and State executive orders on Environmental Justice, NJDEP proposes to offer community groups technical assistance and education grants under this one-year pilot project to work with residents and municipalities to form neighborhood informational groups whose purpose is to research, understand and disseminate information in neighborhoods concerning identified environmental justice issues. Under this one-year pilot program, grantees must be deemed eligible environmental justice petitioners under the State Environmental Justice Executive Order and by the Environmental Justice Taskforce.
Grant funding would be managed by an independent third-party, such as the Environmental Justice Alliance, a Statewide 501c3 consisting of more than 50 Environmental Justice advocacy organizations.
Similar to federal Technical Assistance Grants, environmental justice technical assistance and education grants under this pilot program would enable residents to obtain technical assistance to investigate and address environmental justice concerns within their community with the help of all State-level government agencies. Because these grants would be used to address specific environmental justice concerns identified under the State-level executive order, funding prioritization would enable the distribution of federal resources in a way that is more responsive to local concerns. These grants would enable communities to develop the level of understanding necessary for meaningful involvement in the environmental decision-making process, a key to realizing environmental justice for all.

BUDGET:

$80,000	Provide 5-8 community groups or coalitions with technical assistance grants to address identified environmental justice concerns within their community.
$20,000	One year, part-time contract salary for community outreach specialist to act as a liaison with communities as they undertake investigations
$100,000	Total Budget for a 1-year pilot program

Project Title: Classification of the Ecological Communities of New Jersey: Third Iteration
Contact: Kathleen Strakosch Walz, Ecologist, NJ Natural Heritage Program
Budget: $180,000 Wetland Community Classification

Need for Project

An ecological community is a distinct assemblage of plants and animals recurring across the landscape under similar environmental conditions. These naturally occurring communities are characterized and defined by a combination of vegetation structure and composition, topography, geology, soils, and hydrology. Ecological communities encompass associated rare and characteristic plant and animal species, and therefore represent a higher order of biological diversity or biodiversity. The identification of wetland and upland natural communities is a key component of land conservation efforts aimed at protecting biodiversity. In order for this approach to be effective, land managers and landowners need to be able to identify and understand the significance of ecological communities occurring on their properties. High-quality information on ecological communities will help inform watershed assessment, critical habitat delineation, land use planning and permitting, acquisition and protection, as well as biodiversity inventory and management at the state and local levels.

Methods

The goals of the proposed classification project include the following: 1) revise the community classification by Breden et al., (2001), 2) provide a cross-reference to other classifications (e.g., National Vegetation Classification, USFWS Cowardin Wetlands, Society of American Foresters, Endangered and Non-Game Species Program Landscape Map), and 3) include photographs and statewide distribution maps for each community type. Two versions of the classification will be created -- a bound book with color photographs and a digital version for posting on the NJDEP website. This community classification document will provide a common language and level of detail needed for transferring ecological information across jurisdictional boundaries, and will help the public and resource managers make informed decisions regarding wetland and upland management and conservation.

This proposal to EPA is limited to the wetlands portions of the overall project.

Project Title: Wetland Scientific and Regulatory Program Professional Development
Contact: David Fanz, Land Use Regulation Program
Budget: $40,000

Need For Project

The Land Use Regulation Program (LURP) administers New Jersey's Freshwater Wetlands Program. It is therefore essential that LURP staff keep pace with the scientific and regulatory development not only within the State but also within the Region and nation as a whole. The Program is proposing a new in-house training program, modeled after the Maryland training program, that will allow staff to interact with regional experts in a classroom and field setting.

The program will offer courses in hydric soils, wetland delineation and vegetation identification that are specific to New Jersey and its unique landscape. In addition, the proposed courses will focus on the delineation techniques and regulations that are only applied in New Jersey, that is the delineation methods found in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands(1989) and the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B).

New Jersey is one of only two states in the nation that has assumed regulatory jurisdiction over wetlands from the Federal government. As a result, New Jersey's wetland program is unlike many others in the region. The proposed courses, which will be specifically tailored towards New Jersey regulators, will offer training opportunities that are not otherwise available. The requested funding will supply LURP with books, manuals, equipment necessary for presentations and lectures as well as fees for instructors.

Methods

LURP recognizes the importance of keeping pace with technological developments and regulatory innovations throughout the nation. To that end, LURP requests funds as a part of the training program that will provide opportunities for travel to seminars offered by professional societies such as the Association for State Wetland Managers and the Society of Wetlands Scientists. These workshops and seminars offer a wealth of national and at times global knowledge regarding the science of wetland regulation and mitigation. They offer attendees an opportunity to exchange ideas and innovations with colleagues throughout the country and therefore convey and implement new initiatives that will result in an improved program.

In conclusion, the program is in need of a training program that will assist them in keeping staff energized and current with regard to the perpetually evolving field of wetland science and regulation so that the wetland resources within the State of New Jersey can be protected by educated staff that employ sound science in their decision making process.